Claims

1) Nucleic acid encoding a 26 kD *Lawsonia intracellularis* protein or a part of said nucleic acid that encodes an immunogenic fragment of said protein, said nucleic acid or said part thereof having at least 90 %, preferably 92 %, more preferably 94 %, even more preferably 96% homology with a nucleic acid having a sequence as depicted in SEQ ID NO: 1
2) DNA fragment comprising a nucleic acid according to claim 1.
3) Recombinant DNA molecule comprising a nucleic acid according to claim 1 or a DNA fragment according to claim 2, under the control of a functionally linked promoter.
4) Live recombinant carrier comprising a nucleic acid according to claim 1, a DNA fragment according to claim 2 or a recombinant DNA molecule according to claim 3.
5) Host cell comprising a nucleic acid according to claim 1, a DNA fragment according to claim 2, a recombinant DNA molecule according to claim 3 or a live recombinant carrier according to claim 4.
6) A 26 kD *Lawsonia intracellularis* protein, said protein comprising an amino acid sequence that is at least 90 %, preferably 92 %, more preferably 94 %, even more preferably 96 % homologous to the amino acid sequence as depicted in SEQ ID NO: 2, or an immunogenic fragment of said protein.
7) *Lawsonia intracellularis* protein according to claim 6 for use in a vaccine.
8) Use of a *Lawsonia intracellularis* protein according to claim 6 for the manufacturing of a vaccine for combating *Lawsonia intracellularis* infections.
9) Vaccine for combating *Lawsonia intracellularis* infections, characterised in that it comprises a nucleic acid according to claim 1, a DNA fragment according to claim 2, a recombinant DNA molecule according to claim 3, a live recombinant carrier according to claim 4, a host cell according to claim 5 or a protein according to claim 6, and a pharmaceutically acceptable carrier.
10) Vaccine according to claim 9, characterised in that it comprises an adjuvant.

11) Vaccine according to claim 9 or 10, characterised in that it comprises an additional antigen derived from a virus or micro-organism pathogenic to pigs or genetic information encoding said antigen.

12) Vaccine according to claim 11, characterised in that said virus or micro-organism pathogenic to pigs is selected from the group of Pseudorabies virus, Porcine influenza virus, Porcine parvo virus, Transmissible gastro-enteritis virus, Rotavirus, *Escherichia coli, Erysipelothrix rhusiopathiae, Bordetella bronchiseptica, Salmonella cholerasuis, Haemophilus parasuis, Pasteurella multocida, Streptococcus suis, Mycoplasma hyopneumoniae, Brachyspira hyodysenteriae* and *Actinobacillus pleuropneumoniae.*

13) Vaccine for combating *Lawsonia intracellularis* infections, characterised in that it comprises antibodies against a protein according to claim 6.

14) Method for the preparation of a vaccine according to claim 9-13, said method comprising the admixing of a nucleic acid according to claim 1, a DNA fragment according to claim 2, a recombinant DNA molecule according to claim 3, a live recombinant carrier according to claim 4, a host cell according to claim 5, a protein according to claim 6, or antibodies against a protein according to claim 6, and a pharmaceutically acceptable carrier.

15) Diagnostic test for the detection of antibodies against *Lawsonia intracellularis*, characterised in that said test comprises a protein or a fragment thereof as defined in claim 6.

16) Diagnostic test for the detection of antigenic material of *Lawsonia intracellularis*, characterised in that said test comprises antibodies against a protein or a fragment thereof as defined in claim 6.